

CLAIMS

What is claimed is:

1. A magnetic recording medium comprising:
a non-magnetic support, and provided in order on the support:
a radiation-cured layer formed by curing a layer containing a radiation curing compound by exposure to radiation;
a lower layer comprising a non-magnetic powder and/or a magnetic powder dispersed in a binder; and
at least one magnetic layer comprising a ferromagnetic fine powder dispersed in a binder;
the binder of at least the magnetic layer comprising a binder having a glass transition temperature of 100°C to 200°C, and
the magnetic layer having on the surface thereof a number of micro projections having a height of 10 to 20 nm measured by atomic force microscopy (AFM) of 5 to 1,000/100 μm^2 .
2. The magnetic recording medium according to Claim 1, wherein the magnetic layer has on the surface thereof a number of micro projections having a height of 10 to 20 nm measured by atomic force microscopy (AFM) of 5 to 200/100 μm^2 .
3. The magnetic recording medium according to Claim 1, wherein the radiation curing compound has a viscosity of 1,000 mPa·s or less at 25°C.
4. The magnetic recording medium according to Claim 1, wherein the binder of the magnetic layer comprises a polyurethane resin having a glass transition temperature of 100°C to 200°C.
5. The magnetic recording medium according to Claim 4, wherein the polyurethane resin has a cyclic structure.

6. The magnetic recording medium according to Claim 5, wherein the cyclic structure is an aromatic ring or a cyclohexane ring.

7. The magnetic recording medium according to Claim 4, wherein the polyurethane resin has a polyol/chain extension agent/diisocyanate compound composition of 0 to 30 wt %/25 to 45 wt %/35 to 60 wt %.

8. The magnetic recording medium according to Claim 1, wherein the radiation curing compound is a difunctional acrylate or methacrylate compound.

9. The magnetic recording medium according to Claim 1, wherein the radiation-cured layer has a thickness of 0.1 to 1.0 μm .

10. The magnetic recording medium according to Claim 1, wherein the lower layer is a non-magnetic layer comprising a non-magnetic powder dispersed in a binder.

11. The magnetic recording medium according to Claim 1, wherein the non-magnetic layer has a thickness of 1.0 to 2.0 μm .

12. The magnetic recording medium according to Claim 1, wherein the ferromagnetic fine powder is a cobalt-containing ferromagnetic iron oxide or a ferromagnetic alloy powder.

13. The magnetic recording medium according to Claim 1, wherein the magnetic layer has a thickness of 0.05 to 1.0 μm .